# NEW SPECIES AND SUBSPECIES OF RYGCHIUM FROM NORTH AMERICA (Hymenoptera: Vespidae)

By Richard M. Bohart University of California, Los Angeles

A study of the *Rygchium* material in the U. S. National Museum has resulted in the discovery of two species and two subspecies which are apparently undescribed. One of the new species has probably escaped attention because of its rarity, the other three because they have been confused with previously described forms.

The holotype specimens and most of the paratypes are in the U. S. National Museum. Paratypes have been deposited also

in the collections of J. Bequaert and the author.

#### Rygchium planitarsis, new species

(Figs. 1, 3, 5, 6)

Male.—Black, marked with whitish yellow on mandible, clypeus, scape, antennal hook, interantennal spot, front margin of pronotum, pleural spot, tegula, post-scutellum, legs, apical margins of first 6 tergites and sternites II to V, lateral spots on sternite VI. Tibiae and tarsi partly reddish, last tarsal segment black. Clypeus evenly punctured, narrow and hardly produced apically; last antennal segment stout, obliquely truncate, reaching base of eighth segment; humeral and propodeal angles not prominent; basal four segments of mid tarsus extremely constricted in dorsal view, last segment broadly expanded; first 2 abdominal tergites moderately punctured, covered with thick short hair which is longest at summit of first, second not upturned apically, remaining tergites and sternites moderately punctured.

Female.—About as in male except as follows: Clypeus black except for basolateral spots, vertex with a very broad foveate depression; mid tarsus normal, dark reddish; venter with apical bands only on sternites I and sometimes II,

other sternites with lateral spots.

Holotype male, (U. S. National Museum No. 57181), Cranmoor, Wisconsin, August 16, 1909 (C. W. Hooker). Paratypes, 22 & and 9 & collected from June to September at the following localities: Wisconsin (C. F. Baker); Michigan: Marquette (R. R. Dreisbach), Michigamme (C. Sabrosky), Pine River (H. C. Severin); New Hampshire: White Mts. (A. S. Packard), Jefferson; Maine: Carrs (F. A. Eddy), S. W. Harbor, Saddleback Lake (C. L. Metcalf), Ironbound Valley (D. Blaney), Waldoboro (J. H. Lovell); Nova Scotia: Portaupique (C. A. Frost), Cape Breton Island; New Brunswick: Nerepis and Douglas Harbor (A. G. Leavitt); Quebec: Joliette (C. J. Oellett), Montreal (W. Couper); Ontario: Timagami (A. Brown); Manitoba: Cedar Lake (C. T. Brues); Alberta: Clymon (E. H. Strickland); British Columbia: Nanaimo.

This species occurs with *leucomelas* (Saussure) in Canada and northeastern United States and has been confused with it in collections. The male of *planitarsis* is readily distinguished by its stouter last antennal segment and constricted mid tarsus (figs. 1 to 4). The female is usually more robust, more heavily punctured, the abdomen somewhat more dull, and the second sternite has a complete apical band instead of lateral spots only.

### Rygchium barberi, new species

(Figs. 7, 8)

Female.—Black, marked with deep yellow as follows: a latero-basal clypeal spot, interantennal spot, scape in front, ocular spot, postocular spot, front margin of pronotum, comma-shaped lateral spot on scutum, tegula, pleural spot, triangular spots on scutellum, lateral propodeal spots, femora slightly, tibiae partly, apical margins of first 5 abdominal tergites and sternites II to IV. Legs partly and wings reddish brown. Pubescence short, not prominent, silvery. Puncturation moderate to coarse, punctures well separated on second sternite; vertical surface of first abdominal tergite smooth, horizontal surface well punctured. Clypeus sub-triangular, narrowly bidentate at apex, one and one-third times as broad as long; a weak interantennal carina; interocellar area strongly tuberculate, a smooth tubercle below median ocellus, vertex pit twice as broad as an ocellus. Front margin of pronotum sharp, front face practically impunctate, humeral angle rounded; scutellum flattened, postscutellum strongly punctured but not serrate, no postscutellar shelf; propodeal concavity impunctured, weakly striate, margined above by a sharp carina, lateral angle of propodeum blunt. First abdominal tergite almost rectangular, vertical and horizontal faces at right angles, slightly depressed at middle above; second tergite somewhat thickened and upturned apically, depressed subapically; second sternite with a sharp medio-basal crease (fig. 8).

Holotype female (U. S. National Museum No. 57182), Brownsville, Texas, June 4, 1904 (H. S. Barber). Paratypes: 3 9 9, same data as holotype; 2 9 9, Esperanza Ranch, Brownsville, Texas, July 25–27.

This species is characterized by its slender form, interocellar tubercles, spotted scutellum but unspotted postscutellum, sharp margins to the propodeal concavity, and the deformed second abdominal tergite. These same characters occur in cluniculus (Saussure) which differs from barberi in having a distinctly bituberculate scutellum and a much more strongly contorted and apically upturned second tergite.

#### Rygchium rugosum fedoris, new subspecies

Male.—As in typical rugosum (Saussure) with well punctured first abdominal tergite covered with abundant short hair, blunt propodeal angles, reddish brown wings, and pale tarsi with black terminal segment. Differing from typical rugosum in markings and sculpture as follows: Mandible, pronotum and legs

7. barberi

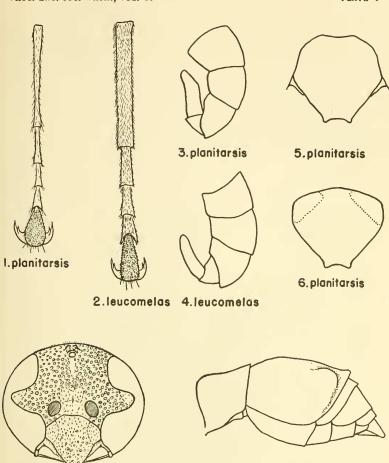


Fig. 1, male mid tarsus of *R. planitarsis* n. sp. Fig. 2, male mid tarsus of *R. leucomelas* (Saussure). Fig. 3, lateral view of male antennal segments 9 to 13 of *planitarsis*. Fig. 4, lateral view of male antennal segments 9 to 13 of *leucomelas*. Fig. 5, male clypeus of *planitarsis*. Fig. 6, female clypeus of *planitarsis*. Fig. 7, front view of head of female *R. barberi* n. sp. Fig. 8, lateral view of abdomen of *barberi*. (No puncturation or pubescence shown in figures 3 to 6, and figure 8.)

8. barberi

more extensively yellow; scutellum and propodeum usually, second abdominal tergite sometimes with lateral yellow spots; first tergite with prominent inwardly directed attached lateral spots; abdomen with broad apical yellow bands at least on tergites I to V and sternites II to V. Clypeus moderately punctured, not quite evenly convex, somewhat produced apically; from somewhat less strongly punctured than in rugosum, second abdominal tergite without an apical upturned membrane and only moderately punctured subapically, third and following tergites moderately punctured.

Female.—Vertex with broad foveate depression as in typical rugosum. Differentiating characters as in male except that clypeus has a central black spot and is reddish apically, first abdominal tergite is often almost wholly yellow above with only a diamond-shaped black mark.

Holotype male, (U. S. National Museum No. 57183), Fedor, Lee Co., Texas, April 2, 1909. Paratypes: 2 & A, 11 & Q, Fedor, Texas; 1 & Q & Q, Lee Co., Texas; 5 & A, 7 & Q, "Texas"; 2 & Q, Kerrville, Texas (F. C. Pratt); 1 & Goliad Co., Texas, March 25, 1907 (J. D. Mitchell).

#### Rygchium sulphureum imperialis, new subspecies

Male.—As in typical sulphureum (Saussure) with sparsely punctured clypeus and vertex, flattened and apically expanded antennal hook, smooth interantennal area, basally depressed middle femur, and practically impunctured first abdominal tergite. Differing from typical sulphureum in markings as follows: Yellow, marked with reddish on vertex, upper frons, scape, scutum, pleuron, propodeum, legs, and bases of abdominal segments. Area around ocelli, spot at front of scutum, black. Flagellum and wings reddish brown.

Female.—Marked about as in male but more extensively yellow. Black markings much reduced or absent, abdomen and pleuron almost wholly yellow.

Holotype male (U. S. National Museum No. 57184), Imperial County, California, June, 1912 (J. C. Bridwell). Paratypes: 7 & A, 2 & &, same data as holotype; 1 &, 11 & &, San Diego Co., Calif., (D. W. Coquillett); 3 & A, 19 & &, California (C. F. Baker); 1 &, southern California; 1 &, Bard, Calif., July 13, 1920 (H. R. Reed).

This subspecies represents the extreme xerophytic color type. The replacement of black with orange-yellow distin-

guishes it at once from typical sulphureum.

It is much more similar in markings to annulatum evectum (Cresson) which occurs in the same area. The male of imperialis has the clypeus about one and one-third times as broad as long, whereas evectum has the clypeus one and one-half times as broad as long. The female of imperialis can be distinguished by its more extensive yellow markings, the yellow instead of orange frons below the upper level of the eye emarginations, and the narrower, yellower clypeus.

#### Rygchium digiticornis, new name

Odynerus canaliculatus Viereck, 1908, Trans. Am. Ent. Soc. 33:392 (preoceby O. canaliculatus Saussure, 1855.)

The holotype male of this species at the University of Kansas was examined in 1937. It differs from all other North American Rygchium in having a v-shaped notch at the apex of the clypeus. In size and coloration it resembles a yellow specimen of dorsale (Fabricius). In addition to the clypeal difference, however, digiticornis has a longer, more finger-like last antennal segment and a much more sharply upturned second abdominal tergite than in dorsale.

## REPORT OF THE CORRESPONDING SECRETARY NOV. 1, 1943 TO OCT. 31, 1944

Letters written, 107; many matters attended to informally.

Proceedings acquired, 525 (net gain in nine numbers for year) plus 352 (gifts of back numbers), total 877.

Back numbers sold, 1295, including 3 complete sets; net reduction, 418. Old reprints sold, 9

Memoirs sold; No. 1, 6; No. 2, 50; several advance inquiries for next memoir are on file.

Literature sales: Proceedings and reprints, \$531.59; Memoir 2, \$140.85; Memoir 1, \$18.00; total \$690.44.

Membership changes of record: Elected 23, resigned 5, died 3, dropped 17, (Proceedings suspended to 5); net loss 2.

(Some of the members dropped were long-delinquent ones not on the present Corresponding Secretary's list; we had really a net gain.) Present list, 264 members, including 11 not receiving Proceedings.

Subscribers: 2 lost, 5 added; present list 135. American Library Association carries 10 subscriptions for suspended European subscribers.

Respectfully submitted, F. M. WADLEY, Corresponding Secretary.

## REPORT OF THE TREASURER FOR THE YEAR 1944 GENERAL FUND

#### RECEIPTS

Cash on hand January 1, 1944 (stamps)	2.50
Hamilton National Bank	545.83
From members, dues for 1944	531.61
dues in advance	32.00
back dues	184.00
initiation fees	29:00
credited to account as advance deposit	130.86